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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,426	07/16/2003	Tong-Shui Zhou	USP2151C-DRSH	1741
30265	7590	12/30/2005	EXAMINER	
RAYMOND Y. CHAN 108 N. YNEZ AVE., SUITE 128 MONTEREY PARK, CA 91754			MCCORMICK EWOLDT, SUSAN BETH	
			ART UNIT	PAPER NUMBER
			1655	
DATE MAILED: 12/30/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/621,426

Applicant(s)

ZHOU, TONG-SHUI

Examiner

S. B. McCormick-Ewoldt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 and 33-40 is/are pending in the application.
- 4a) Of the above claim(s) 1-24, 33 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

The amendment of October 3, 2005 is hereby acknowledged and entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Election/Restrictions**

Applicant elected Group III filed on December 20, 2004. Applicant did not respond to the election of species requirement. However in view of the prior art, the election of species requirements is withdrawn. Thus, the response filed December 20, 2004 is considered fully responsive.

Claims 1-24 and 33-34 are withdrawn from further consideration.

**Claims Pending**

Applicant has cancelled claims 25-32. Claims 35-40 were added in the reply filed July 6, 2005. Claims 35-40 are examined, with the elected species being coronary heart disease.

**Claim Objections**

Claim 35 is objected to because of the following informalities: the term "admistering" is misspelled. Appropriate correction is required.

Claim 35 is objected to because of the following informalities: the term "Tyhae" is misspelled. Appropriate correction is required.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over the websites

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[http://www.ibiblio.org/pfaf/cgi-bin/arr\\_html?Typha+angustifolia&CAN=COMIND](http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Typha+angustifolia&CAN=COMIND) and <http://www.itmonline.org/arts/pain.htm> in view of Ishida *et al.* ("Studies on the Antihemorrhagic Substances in Herbs Classified as Hemostatics in Chinese Medicine. IX. On the Antihemorrhagic Principles in *Typha lactifolia* L.") and JP 06172196 A (translation provided).

Applicant's arguments filed October 3, 2005 have been fully considered but they are not persuasive.

It is noted to Applicant, who **argues** that "ibiblio" and "itmonline" which are qualified as prior art of the instant invention under 35 USC 102(b), a USC 102(b) rejection was never made in the Office action dated March 1, 2005. In addition, a 103 rejection can be based on a 102(a) date reference. See MPEP section 706.02(a), II, C, and 35 U.S.C. 103(a).

The website [http://www.ibiblio.org/pfaf/cgi-bin/arr\\_html?Typha+angustifolia&CAN=COMIND](http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Typha+angustifolia&CAN=COMIND) discloses that pollen of *Typha angustifolia* (i.e. cat-tails) is used for an emmenagogue and haemostatic. Emmenagogue is an agent that promotes menstrual discharge and haemostatic means acting to stop the flow of blood. The website does not specifically disclose specific blood diseases (page 2 under "Medicinal Uses").

**Applicant argues** that "ibiblio" merely discloses the properties of *Typha angustifolia* and never mentions any medicinal use of flavonoids, which is naturally extracted from the *Typha angustifolia* pollen. This is not found persuasive because the flavonoids would be inherently found in the pollen. In addition, the dried pollen is said to be an anticoagulant, which would be used to treat coronary arterial disease.

The <http://www.itmonline.org/arts/pain.htm> discloses that pollen from *Typha angustifolia* and *Typha latifolia* is rich in flavonoids and has been associated with improving blood circulation (page 2, first paragraph).

**Applicant argues** that "itmonline" fails to teach that the flavonoid extracts are obtained from the Chinese medicine *Typhae* pollen and does not disclose how the flavonoid extracts can be used for treating blood circulation problems. This is not found persuasive because "itmonline" states that the plant sources for "puhuang" are from *Typha latifolia* and *Typha angustifolia* (i.e.

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common names are typha or bulrush or cattail pollen). In addition, puhuang is rich in flavonoids and is used for improving blood circulation, which would benefit coronary arterial disease.

Ishida *et al.* disclose the use of flavonoids that known to have antihemorrhagic principles in herbs that are classified as hemostatics in Chinese medicine (page 4414, first and second paragraphs).

**Applicant argues** that Ishida *et al.* merely disclose a new flavonol glucoside and the flavonoids extracted of the instant invention is naturally extracted from the Chinese medicine Typhae pollen. This is not persuasive because Ishida does extract flavonoids from Typha lactifolia, a source of Typha pollen. In addition, Ishida's extraction would contain the same flavonoids as claimed.

JP 06172196A discloses using ethanol and heat for extracting *Typhae* pollen (i.e. bulrush) to be used in improving blood circulation ([0018] and [0019]). This extraction encompasses the extraction taught by Applicant in the specification. Therefore, this extraction would contain the flavonoids as claimed in claim 1.

**Applicant argues** that JP 06172196A merely discloses an extract of bulrush (Typhae pollen), which improves the blood stagnation of a microcirculatory system. This is not found persuasive because the bulrush extract is considered part of the composition to improve blood circulation. Therefore, it would inherently contain the flavonoids, which would have beneficial properties to improve blood circulation.

In response to **Applicant's argument** that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the references taken together disclose that "ibiblio," "itmonline," Ishida and

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JP 06172196A all disclose that Typha pollen contains flavonoids and as disclosed in “ibiblio” and “itmonline” has properties that improves blood circulation and coronary arterial disease.

Therefore, the rejection is deemed proper and is maintained.

It is noted to Applicant that there were no “cited but not relied upon references” other than the previous references disclosed in the rejections.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao *et al.* (“The Antiatherogenic Effects of Components Isolated from Pollen Typhae,” Thrombosis Research 57; 957-966, 1990).

Zhao *et al.* (“The Antiatherogenic Effects of Components Isolated from Pollen Typhae”) discloses that pollen from *Typha angustifolia* is a traditional Chinese medicine and is known to alleviate the clinical symptoms of patients with coronary heart disease (page 957). However, Zhao *et al.* does not disclose the several different flavonoid constituents, which is claimed.

From the teaching of the reference, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. One would have been motivated to extract the more flavonoids from *Typha angustifolia* pollen to help treat patients with coronary disease because *Typha angustifolia* pollen has therapeutic effects to alleviate certain symptoms of coronary disease. Therefore, the therapeutic effects of the pollen would be beneficial to patients with coronary disease.

Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the reference, especially in the absence of evidence to the contrary.

#### Summary

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Susan B. McCormick-Ewoldt whose telephone number is (571) 272-0981. The Examiner can normally be reached Monday through Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Terry McKelvey, can be reached on (571) 272-0775. The official fax number for the group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sbme



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SUSAN COE  
PRIMARY EXAMINER